ABSTRACT OF THE DISCLOSURE

An apparatus and method for re-transmitting erroneous packet data is disclosed. Each of the physical layers of the system includes a buffer, a timer, a controller, and a radio frequency unit. The buffer temporarily stores transmitted data in the form of a final data frame capable of being transmitted on a transmission line without any processing. The timer is a time counter adapted to limit the time, for which the transmission end waits for an acknowledgment to a transmission of data after the data transmission is made. If no acknowledgment signal is received when the timer expires the buffered data in the physical layer is re-transmitted. This reduces the data transmission delay resulting from the inter-layer movement of data generated during a re-transmission of erroneous data, and the transmission delay of packet data resulting from overhead time.